

REMARKS

Summary of the Office Action

Claims 1, 2, 10, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi (JP 5-249422).

Claims 1, 3, 10, 12, 13, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matsushima (US 6,391,137).

Claims 1, 3, 10, 12, 13, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Shin et al. (US 6,197,209).

Claims 1, 3-10, 12-14, and 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Disclosed Prior Art in view of Matsushima.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Applicant's Disclosed Prior Art.

Claims 1-21 stand rejected under 35 U.S.C. § 112, first paragraph.

Summary of the Response to the Office Action

Applicant has amended claims 1, 10, 14, 17, and 19 to further define the invention. Accordingly, claims 1-21 are pending for further consideration.

All Claims Comply with 35 U.S.C. § 112

Claims 1-21 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. Specifically, the Office Action alleges that the specification does not support the recitation of removing foreign materials from *upper and* lower substrates in claims 1, 10 and 14. In addition, the Office Action alleges that the specification

does not support the recitation of “said steps” in claims 10 and 14. Accordingly, Applicant has amended each of independent claims 1, 10, and 14 to recite “cleaning exposed surfaces of the bonded upper and lower substrates to remove foreign materials formed on the lower substrate” In addition, Applicant has amended claims 10 and 14 to recite, respectively, that cleaning is performed to remove foreign materials formed on the lower substrate during “preparation of the lower substrate,” and during “the formation of the protective layer.”

Thus, Applicant respectfully submits that claims 1-21, as presently amended, comply with the requirements of 35 U.S.C. § 112, first paragraph, and respectfully request that the rejection be withdrawn.

All Claims Define Allowable Subject Matter

Claims 1, 2, 10, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi (JP 5-249422), claims 1, 3, 10, 12, 13, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matsushima (US 6,391,137), claims 1, 3, 10, 12, 13, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Shin et al. (US 6,197,209), claims 1, 3-10, 12-14, and 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant’s Disclosed Prior Art in view of Matsushima, and claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Applicant’s Disclosed Prior Art. Applicant traverses these rejections for at least the following reasons.

The Office Action alleges (page 4, lines 4-7) that Takashi discloses immersing bonded substrates in an etchant reagent and subsequent cleaning of the etched bonded substrates. In addition, the Office Action alleges (page 4, lines 18-21) that Matsushima discloses washing

etched substrates with pure water to remove residual etchant. Furthermore, the Office Action alleges (page 5, lines 16-18) that Shin et al. discloses cleaning bonding upper and lower substrates and simultaneously eliminating/removing exposed surfaces of the bonded upper and lower substrates. More specifically, the Office Action alleges that none of claims 1 and 10 require that the eliminating step be performed after the cleaning step. Applicant respectfully disagrees.

Independent claims 1 and 10, as amended, recites, in part, steps of “cleaning exposed surfaces of the bonded upper and lower substrates to remove foreign materials formed on the lower substrate during the preparing of the lower substrate” and “simultaneously eliminating the cleaned exposed surfaces of the bonded upper and lower substrates.” Similarly, independent claim 10, as amended, recites, in part, steps of “cleaning exposed surfaces of the bonded upper and lower substrates to remove foreign materials formed on the lower substrate during preparation of the lower substrate” and “simultaneously removing the cleaned exposed surfaces of the bonded upper and lower substrates.” In contrast to Applicant’s claimed invention, and as acknowledged by the Office Action, Takahashi, Matsushima, and Shin et al. all teach a step of cleaning *after* a step of elimination. Accordingly, Applicant respectfully asserts that Takahashi, Matsushima, and Shin et al. fails to teach or suggest at least a step of simultaneously eliminating/removing “the *cleaned* exposed surfaces of the bonded upper and lower substrates,” as recited by amended independent claims 1 and 10.

Applicant respectfully asserts that the combination of Applicant's Admitted Prior Art and any of Takahashi, Matsushima, and Shin et al. fails to establish a prima facie case of obviousness with regard to at least independent claims 1, 10, and 14. Specifically, Applicant respectfully asserts that none of Applicant's Admitted Prior Art, Takahashi, Matsushima, and/or Shin et al., whether taken singly or in combination, teach or suggest a step of simultaneously eliminating/removing "the *cleaned* exposed surfaces of the bonded upper and lower substrates," as recited by amended independent claims 1, 10, and 14, and hence dependent claims 2-9, 11-13, and 15-20.

Thus, for at least the reasons set forth above, Applicant respectfully asserts that the rejections under 35 U.S.C. §§ 102 and 103 should be withdrawn because the above-discussed novel combinations of features are neither taught nor suggested by any of the applies references, whether taken alone or in combination.

CONCLUSION

In view of the foregoing, Applicant respectfully requests entry of the amendments, reconsideration and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such as an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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